

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1. - 3 (Canceled)
- 1 4. (Previously Presented) A customizable application system comprising:
- 2 an internet application system configured to support an internet application, the
- 3 internet application associated with metadata configured for use in generating an application user
- 4 interface including a user interface element, the internet application system including,
- 5 a) a user interface generator configured to generate the application
- 6 user interface using the metadata, and
- 7 b) a web application server configured to deliver the application user
- 8 interface to a client;
- 9 an application development system configured to generate the metadata, the
- 10 metadata being further configured to characterize a user customizable immediate access
- 11 keystroke combination associated with the user interface element;
- 12 a configuration system including a configuration engine and a configuration
- 13 interface, the configuration interface configured to modify configuration data further
- 14 characterizing the customizable immediate access keystroke combination in response to
- 15 receiving input from a user defining the customizable immediate access keystroke combination,
- 16 the keystroke combination for a function to be performed for the user interface element; and
- 17 a data repository including a data record for storing the configuration data, the
- 18 data record being accessible using the metadata, the data record defining the function,
- 19 wherein the application user interface is automatically generated and configured
- 20 to perform the function for the user interface element when the immediate access keystroke
- 21 combination is received.

1 5. (Previously Presented) An application development system for
2 developing an internet application having an application user interface, the application
3 development system comprising:
4 an integrated development environment configured for specifying a user interface
5 element in the application user interface, the user interface element having a user customizable
6 immediate access keystroke combination, the integrated development environment configured to
7 receive input from a user defining the customizable immediate access keystroke combination, the
8 keystroke combination for a function to be performed for the user interface element; and
9 an application designer configured to produce metadata to characterize the
10 customizable immediate access keystroke combination, the metadata defining the function,
11 wherein the application user interface is automatically generated and configured
12 to perform the function for the user interface element when the immediate access keystroke
13 combination is received.

1 6. (Previously Presented) The application development system of claim 5,
2 wherein the immediate access keystroke combination is a hotkey keystroke combination.

1 7. (Previously Presented) The application development system of claim 5,
2 wherein the immediate access keystroke combination is responsive to the identity of a user.

1 8. (Previously Presented) A customizable application system for developing
2 an application user interface associated with an internet application comprising:
3 an integrated development environment configured for a developer to specify a
4 user interface element in the application user interface, the user interface element having a user
5 customizable immediate access keystroke combination, the integrated development environment
6 configured to receive input from the developer defining the customizable immediate access
7 keystroke combination, the keystroke combination for a function to be performed for the user
8 interface element;

9 an application designer configured to produce metadata characterizing the user
10 customizable immediate access keystroke combination; and
11 a data repository including a data record accessible using the metadata, the data
12 record being user modifiable and being configured to store data used to further characterize the
13 customizable immediate access keystroke combination, the data record defining the function,
14 wherein the application user interface is automatically generated and configured
15 to perform the function for the user interface element when the immediate access keystroke
16 combination is received.

1 9. (Previously Presented) The customizable application system of claim 8,
2 wherein the user customizable immediate access keystroke combination is a hotkey keystroke
3 combination.

1 10. (Previously Presented) The customizable application system of claim 8,
2 wherein the user customizable immediate access keystroke combination is configurable
3 according to the identity of a user.

1 11. (Previously Presented) The customizable application system of claim 8,
2 wherein the data record is user modifiable using a configuration system.

1 12. (Previously Presented) The customizable application system of claim 8,
2 wherein the data record is user modifiable using a personalization system.

1 13. (Previously Presented) The customizable application system of claim 12,
2 wherein the personalization system is integrated into the internet application.

1 14. (Previously Presented) An application execution system comprising:
2 a configuration system configured to modify a data record in response to
3 receiving input from a user defining a customizable immediate access keystroke combination,
4 the keystroke combination for a function to be performed for a user interface element

5 an internet application system configured to support an internet application, the
6 internet application system including a query processor configured to query a data repository, the
7 data repository including the user-modifiable data record configured to store data characterizing
8 a user customizable immediate access keystroke combination, the data record defining the
9 function,;

10 an application user interface including the user interface element, the application
11 user interface configured as an interface between the internet application and a user, the user
12 interface element including the user customizable immediate access keystroke combination, the
13 user interface element configured for delivery to a client over a computer network, wherein the
14 application user interface is automatically generated and configured to perform the function for
15 the user interface element when the immediate access keystroke combination is received; and
16 metadata further characterizing the customizable immediate access keystroke
17 combination.

1 15. (Previously Presented) The application execution system of claim 14,
2 wherein the client supports the application user interface using standard web browser protocols.

1 16. (Previously Presented) The application execution system of claim 14,
2 wherein the client supports the application user interface using features of a web browser, the
3 features not requiring a browser add-on, plug-in, or extension.

1 17. (Previously Presented) The application execution system of claim 14,
2 further including a personalization system configured to modify the user modifiable data record.

1 18. (Previously Presented) The application execution system of claim 17,
2 wherein the personalization system is included in the internet application.

1 19. (Previously Presented) An internet application system comprising:
2 a configuration system configured to modify data characterizing a user
3 customizable immediate access keystroke combination in response to receiving input from a user

4 defining the customizable immediate access keystroke combination for a function to be
5 performed for a user interface element;

6 a user interface generator configured to generate a user interface including the
7 user interface element, the user interface being compatible with a standard web browser and
8 being generated in response to a request from a user, the user interface element including a user
9 customizable immediate access keystroke combination, wherein the user interface is
10 automatically generated and configured to perform the function for the user interface element
11 when the immediate access keystroke combination is received;

12 a web application server configured to deliver the user interface to a client; and
13 an internet application accessible to the user through the generated user interface.

1 20. (Previously Presented) The internet application system of claim 19,
2 wherein the user interface generator is further configured to use metadata to characterize the user
3 customizable immediate access keystroke combination.

1 21. (Previously Presented) The internet application system of claim 19,
2 wherein the user customizable immediate access keystroke combination is a hotkey keystroke
3 combination.

1 22. (Previously Presented) The internet application system of claim 19,
2 wherein the user interface generator is further configured to use a user modifiable data record to
3 characterize the user customizable immediate access keystroke combination.

1 23. (Previously Presented) The internet application system of claim 19,
2 further including means for accessing a user-modifiable data record including data characterizing
3 the user customizable immediate access keystroke combination.

1 24. (Previously Presented) The internet application system of claim 19,
2 wherein the internet application includes a configuration system configured to modify data
3 characterizing the user customizable immediate access keystroke combination.

1 25. (Previously Presented) The internet application system of claim 19,
2 wherein the client is a wireless system.

1 26. (Previously Presented) The internet application system of claim 19,
2 wherein the client is a programmable device configured to support standard web browser
3 protocols.

1 27. (Previously Presented) An internet application comprising:
2 an application user interface including a user interface element with a user
3 customizable immediate access keystroke combination, the application user interface configured
4 for delivery to a client and configured to operate as an interface between a user and the internet
5 application, wherein the application user interface is automatically generated and configured to
6 perform the function for the user interface element when the immediate access keystroke
7 combination is received;

8 a user modifiable data record stored in a location physically remote from the
9 client, the user modifiable data record configurable for use by a user interface generator to
10 generate the application user interface, the user modifiable data record further configurable to
11 characterize the user customizable immediate access keystroke combination with data defining a
12 function, the customizable immediate access keystroke combination being received from a user,
13 the keystroke combination for a function to be performed for the user interface element; and
14 metadata configurable for use by the user interface generator to access the user
15 modifiable data record.

1 28. (Previously Presented) The internet application of claim 27, wherein the
2 user customizable immediate access keystroke combination is a hotkey keystroke combination.

1 29. (Previously Presented) The internet application of claim 28, wherein the
2 user modifiable data record is further configurable such that generation of the application user
3 interface is responsive to an identity of the client.

1 30. (Previously Presented) The internet application of claim 27, wherein the
2 user modifiable data record is configurable using a configuration interface.

1 31. (Previously Presented) The internet application of claim 27, wherein the
2 user modifiable data record is further configurable such that generation of the application user
3 interface is responsive to an identity of the user.

1 32. - 34. (Canceled)

1 35. (Previously Presented) A method of developing a customizable user
2 interface element for inclusion in an application user interface, the method comprising the steps
3 of:

4 developing a user interface element;

5 specifying a customizable property of the user interface element, the customizable
6 property including a user customizable immediate access keystroke combination;

7 determining a data record for holding a value configured to characterize the user
8 customizable immediate access keystroke combination, the data record being stored in a data
9 repository and being user modifiable, the data repository being physically remote from a client
10 used to display the application user interface, the application user interface being for accessing
11 an internet application;

12 generating metadata further characterizing the user customizable immediate
13 access keystroke combination, the metadata including a reference to the data record;

14 storing the metadata in association with the user interface element;

15 receiving input from a user defining the customizable immediate access keystroke
16 combination for a function to be performed for the user interface element; and

17 configuring the value of the data record to define the function,

18 wherein the application user interface is automatically generated and configured
19 to perform the function for the user interface element when the immediate access keystroke
20 combination is received.

1 36. (Previously Presented) The method of claim 35, wherein the user
2 customizable immediate access keystroke combination is a hotkey keystroke combination.

1 37. (Previously Presented) The method of claim 36, wherein the step of
2 specifying a customizable property is performed using an integrated development environment.

1 38. (Previously Presented) The method of claim 36, wherein the internet
2 application includes a configuration system configured to modify the data record.

1 39. (Previously Presented) A method of generating a customizable
2 application user interface, the method comprising the steps of:
3 accessing a page definition, the page definition including metadata for
4 characterizing a user customizable immediate access keystroke combination;
5 accessing a data record using the metadata, the data record being stored in a data
6 repository and being user modifiable in response to receiving input from a user defining the
7 customizable immediate access keystroke combination for a function to be performed for the
8 user interface element, the data record defining the function, the data repository being physically
9 remote from a client used to display the user customizable application user interface;
10 determining a value characterizing the user customizable immediate access
11 keystroke combination using information stored in the data record;
12 generating markup-language responsive to the determined value; and
13 including the generated markup-language in an application user interface, wherein
14 the markup-language is usable to automatically generate the application user interface that is
15 configured to perform the function for the user interface element when the immediate access
16 keystroke combination is received.

1 40. (Previously Presented) The method of claim 39, wherein the customizable
2 application user interface is a user interface to an internet application.

1 41. (Previously Presented) The method of claim 40, further including a step
2 of modifying the data record using a configuration system.

1 42. (Previously Presented) The method of claim 40, wherein the step of
2 accessing a data record using the metadata is responsive to the identity of a user.

1 43. (Previously Presented) The method of claim 40, wherein the user
2 customizable immediate access keystroke combination is a hotkey keystroke combination.

1 44. (Previously Presented) A method of developing an HTML based interface
2 between a user and an application, the method comprising the steps of:

3 receiving a selection of a user interface element from a user in response defining a
4 customizable immediate access keystroke combination, the keystroke combination for a function
5 to be performed for the user interface element;

6 associating the user interface element with a data record, the data record being
7 stored in a data repository and being user modifiable, the data record defining the function,;

8 including the user interface element in the interface, wherein the interface is
9 automatically generated and configured to perform the function for the user interface element
10 when the immediate access keystroke combination is received;

11 generating metadata characterizing the user customizable immediate access
12 keystroke combination, the metadata being for accessing the data record; and

13 storing the metadata in association with the application.

1 45. (Previously Presented) The method of claim 44, wherein the application is
2 an internet application.

1 46. (Previously Presented) The method of claim 45, wherein the metadata is
2 configured to access the data record responsive to an identity of a user of the application.

1 47. (Previously Presented) The method of claim 45, wherein the customizable
2 immediate access keystroke combination is a hotkey keystroke combination.

1 48. (Previously Presented) A method of customizing an immediate access
2 keystroke combination in an HTML based application user interface for accessing an internet
3 application, the method comprising the steps of.
4 accessing a configuration system, the configuration system including a
5 configuration engine and a configuration interface;
6 selecting, using the configuration interface, the immediate access keystroke
7 combination of a user interface element in the HTML based application user interface, the
8 immediate access keystroke combination being user customizable, the keystroke combination for
9 a function to be performed for the user interface element; and
10 specifying configuration data using the configuration interface, the configuration
11 data characterizing the immediate access keystroke combination and the configuration data being
12 stored in a data repository physically remote from a client used to display the HTML based
13 application user interface, the configuration data defining the function,
14 wherein the application user interface is automatically generated and configured
15 to perform the function for the user interface element when the immediate access keystroke
16 combination is received.

1 49. (Previously Presented) The method of claim 48, wherein the immediate
2 access keystroke combination is a hotkey keystroke combination.

1 50. (Previously Presented) The method of claim 48, wherein configuration
2 data is configured to characterize the immediate access keystroke combination responsive to an
3 identity of a user of the internet application.

1 51. (Previously Presented) The method of claim 48, further including a step
2 of modifying the configuration data using a personalization system.

1 52. (Previously Presented) The method of claim 48, wherein the HTML based
2 application user interface is displayed at the client without requiring a browser add-on, plug-in,
3 or extension.

1 53. (Previously Presented) A method of customizing an immediate access
2 keystroke combination in an application user interface, the method comprising the steps of:
3 accessing a configuration system, the configuration system including a
4 configuration engine and a configuration interface;
5 selecting, using the configuration interface, an immediate access keystroke
6 combination of a user interface element in an application user interface, the immediate access
7 keystroke combination being user customizable, the keystroke combination for a function to be
8 performed for the user interface element;
9 specifying configuration data using the configuration interface, the configuration
10 data characterizing the immediate access keystroke combination, the configuration data defining
11 the function; and
12 automatically generating the application user interface using the specified
13 configuration data, the application user interface being associated with an internet application
14 and configured to perform the function for the user interface element when the immediate access
15 keystroke combination is received.

1 54. (Previously Presented) The method of claim 53, further including a step
2 of displaying the application user interface using standard web browser protocols.

1 55. (Previously Presented) The method of claim 53, wherein the immediate
2 access keystroke combination is a hotkey keystroke combination.

1 56. (Previously Presented) A method of executing an internet application
2 comprising the steps of:
3 receiving a request for an application user interface from a client, the application
4 user interface including a user interface element;
5 accessing a page definition, the page definition including metadata characterizing
6 the requested application user interface;

7 retrieving, using the metadata, a value characterizing a user customizable
8 immediate access keystroke combination of the user interface element, the value being stored in
9 a data repository physically remote from the client, the value defining a function for the
10 customizable immediate access keystroke combination, the keystroke combination for the
11 function to be performed for the user interface element being received from a user;
12 automatically generating HTML responsive to the retrieved value;
13 including the generated HTML in the requested application user interface; and
14 delivering the requested user interface to the client, the requested application user
15 interface being an interface between a user and the internet application, wherein the application
16 user interface is configured to perform the function for the user interface element when the
17 immediate access keystroke combination is received.

1 57. (Previously Presented) The method of claim 56, wherein the user
2 customizable immediate access keystroke combination is a hotkey keystroke combination.

1 58. (Previously Presented) The method of claim 56, wherein the retrieved
2 value is personalization data.

1 59. (Previously Presented) The method of claim 56, further including a step
2 of displaying the application user interface on the client using standard web browser protocols.

1 60. (Previously Presented) The method of claim 56, further including the step
2 of identifying the requestor, wherein the step of retrieving a value is responsive to the identity of
3 the requester.

1 61. (Previously Presented) The method of claim 56, wherein the step of
2 retrieving a value is responsive to inclusion of the application user interface in an application
3 component.

1 62. (Previously Presented) A method of generating an application user
2 interface including a user customizable immediate access keystroke combination, the method
3 comprising the steps of:
4 accessing a page definition, the page definition including metadata associated
5 with the user customizable immediate access keystroke combination;
6 reading data from a data record using the metadata, the data record being stored in
7 a data repository and being user modifiable, the data repository being physically remote from a
8 client used to display the application user interface, the data record defining a function for the
9 customizable immediate access keystroke combination, the keystroke combination for the
10 function to be performed for the user interface element being received from a user;
11 determining a value characterizing the user customizable immediate access
12 keystroke combination using the data read from the data record;
13 automatically generating HTML responsive to the determined value; and
14 including the generated HTML in the application user interface, the application
15 user interface being for accessing an internet application, wherein the application user interface
16 is configured to perform the function for the user interface element when the immediate access
17 keystroke combination is received.

1 63. (Previously Presented) The method of claim 62, wherein the user
2 customizable immediate access keystroke combination is a hotkey keystroke combination.

1 64. (Previously Presented) The method of claim 62, wherein the data record
2 includes personalization data.

1 65. (Previously Presented) The method of claim 62, further comprising:
2 delivering the application user interface to the client; and
3 displaying the application user interface at the client using standard web browser
4 protocols.

1 66. (Previously Presented) The method of claim 62, further including
2 identifying the client, wherein the step of reading data is responsive to the identity of the client.

1 67. (Previously Presented) The method of claim 62, further including a step
2 of identifying a user, wherein the step of reading data is responsive to the identity of the user.

1 68. (Previously Presented) A method of generating a user customizable
2 application user interface configured for delivery from a server to a client, the method
3 comprising the steps of:
4 receiving a request for the user customizable application user interface from a
5 requestor, the user customizable application user interface including a user interface element;
6 identifying the requester of the user customizable application user interface;
7 accessing a page definition, the page definition including metadata characterizing
8 the requested user customizable application user interface;
9 retrieving a value characterizing a customizable immediate access keystroke
10 combination included in the user interface element, using the metadata and the identity of the
11 requester, the value being user modifiable and being stored in a data repository physically remote
12 from the client, the value defining a function for the customizable immediate access keystroke
13 combination, the keystroke combination for the function to be performed for the user interface
14 element being received from a user;
15 automatically generating HTML responsive to the value;
16 including the generated HTML in the requested user customizable application
17 user interface; and
18 delivering the requested user customizable application user interface to the client,
19 wherein the application user interface is configured to perform the function for the user interface
20 element when the immediate access keystroke combination is received.

1 69. (Previously Presented) The method of claim 68, wherein the customizable
2 immediate access keystroke combination is a customizable hotkey keystroke combination.

1 70. (Previously Presented) The method of claim 68, further including
2 displaying the user customizable application user interface using standard web browser
3 protocols.

1 71. (Previously Presented) A computer readable medium including an
2 internet application, the internet application comprising:
3 metadata defining an application user interface, the application user interface
4 including a user interface element with a user customizable immediate access keystroke
5 combination, the application user interface configured for delivery to a client and configured to
6 operate as an interface between a user and the internet application;
7 a user interface generator configured to generate the application user interface
8 using a user modifiable data record stored in a location physically remote from the client, the
9 user modifiable data record configurable to characterize the user customizable immediate access
10 keystroke combination, the data record defining the function, wherein the application user
11 interface is automatically generated and configured to perform the function for the user interface
12 element when the immediate access keystroke combination is received; and
13 a configuration system configured for a user to modify the user modifiable data
14 record in response to receiving input from the user defining the customizable immediate access
15 keystroke combination, the keystroke combination for a function to be performed for the user
16 interface element, the data record being modified based on the input.

1 72. (Previously Presented) A computer readable medium including an
2 internet application, the internet application comprising:
3 an application designer configured to develop an application user interface, the
4 application user interface including a user interface element with a user customizable immediate
5 access keystroke combination, the application user interface configured for delivery to a client
6 and configured to operate as an interface between a user and the internet application;
7 a user interface generator configured to generate the application user interface
8 using a user modifiable data record stored in a location physically remote from the client, the

9 user modifiable data record configurable to characterize the user customizable immediate access
10 keystroke combination, the data record defining the function, wherein the application user
11 interface is automatically generated and configured to perform the function for the user interface
12 element when the immediate access keystroke combination is received; and
13 a configuration system configured for a user to modify the user modifiable data
14 record in response to receiving input from the user defining the customizable immediate access
15 keystroke combination, the keystroke combination for a function to be performed for the user
16 interface element, the data record being modified based on the input.

1 73. (Previously Presented) An application execution system comprising:
2 means for supporting an internet application;
3 means for automatically generating an application user interface using a user
4 modifiable data record configured to store data characterizing a user customizable immediate
5 access keystroke combination, the data defining the function, wherein the application user
6 interface is configured to perform the function for the user interface element when the immediate
7 access keystroke combination is received, the keystroke combination for the function to be
8 performed for the user interface element being received from a user; and
9 means for providing the application user interface to a user, the application user
10 interface including a user interface element, the application user interface configured as an
11 interface between the internet application and the user, the user interface element including the
12 user customizable immediate access keystroke combination, the user interface element
13 configured for delivery to a client over a computer network.